

Environmental Sustainability Through Green Banking Practices

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Abstract

Ecological inequality has embossed an essential debate in protection of environment among environmentalists, organisation, and government, all over the earth. Banks, too, can provide imperative foresight for the due economic restoration that will line latest room for investing and financing policies for inception of a robust and fortunate low carbon economy. Green Banking is an element of ethical banking finished with global initiatives by a circle of stakeholders to bail out the environment. The paper seeks to examine the extent of various green banking approaches adopted by public, private and foreign banks in India for environmental sustainability. The Chi-square, Factor Analysis and Garrett's Rating Technique has been used to identify the statements. Further, this paper has been made to study level of customer and employees' awareness regarding green banking initiatives taken by selected banks. Thus, the paper identifies the juncture of green marketing ambition of the banks on the foot of their green banking initiatives. The sample consists of the 15 leading performing banks from public, private and foreign sector. The findings of the paper reveal that with the time the Indian banking sector have accepted the relevance of environmental preservation and instituted various initiatives under its green banking avenue. The finding also shows that foreign sector banks have taken more green banking initiatives as compared to public and private banks in India. The results of the study denotes the three common demographic factor i.e. educational qualification, monthly income and age group related to level of customer and employees' awareness towards green banking. Further, the result of Garrett's ranking shows that in view of employees, green banking is an important part of banking system as it consists environment. Further, the Customers responses on

fifteen factors were converted into 3 sets of related factors through principal components' analysis, namely Environmental Factors, Safety and Timeliness Factors and Legal Factors. The results revealed that customers were influenced more with the environmental factors (.903) as it has a highest factor loading as compared to other two factors.

Key Words

Green Banking, Environment Sustainability, Public, Private & Foreign Banks

INTRODUCTION

The dire impact of latter blizzards, droughts, floods and boundless heat that most of the people from every nation experienced or suffered, inclined us to determine sincerely about global warming and the measures we can adopt or choose to address this problem. The single mandatory principle is not just a source to fight with but the voluntary participation of all nations with one single rule is the immediate remedy for global warming. Most of the developed and developing nations follow the ESG Integration approach to fight with this poison, in the line most common postulates they adopt is NEPA, UNEP FI, Equator Principle etc. The United Nations Environment Programme Finance Initiative (UNEP FI) rooted to revitalize better employment of sustainability principle at all levels of operations in financial institutions through the fusion of environmental, social and governance antecedents in risk analysis at a same time with environment protection. The ESG initiative is a public-private partnership (PPP) rooted between the financial sectors and the United Nations Environment Programs. It works heedfully with over 200 representatives including premier banks, insurance corporations and investments, funds to maturate and boost liaison between financial performance and sustainability. On the other hand, the Equator Principle is a cluster of voluntary guidelines for the placement, judgement and maintenance of environmental and social danger in project financing. The Equator Principles are established on the World Bank Group Environmental, Health and Safety Guidelines (EHS) and International Finance Corporation Performance Standards on social and environmental sustainability. Presently, 78 financial institutions in 32 countries have conventionally accepted the EPs, shelter over 70 percent of international project finance debt in developing merchandise.

In Dec. 2007, the Reserve Bank of India issued a circular (RBI 2007-2008/016) turning the spotlight on the importance of banks to execute socially and responsibly as well to bestow towards sustainability. Companies are now participating to a greater extent in order to promote sustainability in decision-

making and implement protocols that bring solutions to environmental issues. One of the major practice under ESG Integration adopted by the Indian banks is green banking. The reasons for going green are abundant and intangibles too, it can only be seen or touched in their financial and non-financial reporting antecedents. The key factors that influence the banking corporation towards environment concerns are energy consumption, growing consumer interest in eco-friendly goods and services, energy prices, higher expectations by the society on environmental responsibilities as well as emerging rigid regulatory and compliance provision. On the ground, investors have started discounting the corporation's share-prices who directly or indirectly created avenues for environmental problems. They are progressively placing their money on green initiatives or that boost or develop green products and services. Furthermore, customers also concentrate on the company's environmental, social and governance records and initiatives at a time of making purchases, outsourcing or leasing decisions. Public, investors and government agencies are pressing more disclosures from companies regarding their carbon footprint, environmental initiatives and attainments. As a pressure, corporations with the technology and vision to provide products and services that abide environmental issues definitely eat up a rivalry edge. Like any other corporation, as consumer of natural reserve, banks straightly and indirectly interplay with the environment. Banks subscribe towards the carbon emission directly in their day-to-day activities in terms of use of electricity, paper, air conditioning, lighting, electronic equipment etc. not with this but by financing those intermediaries who are the major source of long-term funding to various industries that polluted the environment heavily banks indirectly affect the nature and society as a whole. Therefore, it is a burning agenda to understand the need for sustainable practices for banking industries. In India, the practical task of green banking is on emerging posture and banks are keenly looking for methods to represent themselves as a green bank.

Green Banking Initiatives Across the Globe

The idea of environmental sustainability evoked in 1969 with the enactment of the National Environmental Policy Act (NEPA, amended act 2014) in the United States whose intention is to sustain effective amity between man and nature. Later on, an independent agency was established in 1970 known as Environmental Protection Agency (EPA) with the desire to preserve the natural resources, human health and to look after the attributes of the environment. In view of this, numerous other associations are bringing into existence to support and promote environmental sustainability through environmental management skills in this chain. US Green

Building Council (USGBC), International Finance Corporations (IFC) etc. participated to nurture the sustainability growth i.e. inclusive growth. Further in 1992, United Nations Framework Convention on Climate Change (UNFCCC) is an intercontinental treaty which was cemented by countries to restrain the average growth in global temperature. Then, with the support of 200 financial institutions who are the signatories from entire globe launched the United Nations Environment Programme called UNEP Finance Initiative to promote sustainable development. It will be important to recognise that Netherlands situated ABN-AMRO Bank has grown questionless Reputational Risk Management (RRM) protocols to determine, evaluate and administer non-financial tantrum to be presented within its business engagements. Not long after in 2002, an international association of NGOs formed a network titled "Bank Tract" to promote sustainable finance in the commercial sector. Currently 79 institutions in 35 countries adopted the Equator Principle as a voluntary postulate for evaluation and management of social and environment risk in Projects (Equator Principles Association, 2014). If we look into the Indian boundaries, Centre for Environmental Research and Education (CERE), Centre for Environmental Education (CEE) and Indian Green Banking Council are principal organisations to encourage environment sustainability. Furthermore, initiatives in a chain introduced by RBI to boost sustainable development in India are S&P BSE-

Annual Investments/Productions With Respect to Green Banking Globally

New Capacity Investment	China US	Germany	Japan	Italy	-
Hydro Power Capacity	China	Turkey	Brazil/Vietnam	Russia	Canada
Solar Powered Capacity	Germany	Italy	China	U.S.	Japan
Wind Power Capacity	U.S.	China	Germany	India	United Kingdom
Solar Water Collector	China	Turkey	Germany	India	Brazil
Ethanol Production	U.S.	Brazil	China	Canada	France
Bio-Diesel Production	U.S.	Argentina	Germany/ Brazil	France	Indonesia

Source : Global Status Report 2015

GREENEX and "Green Coin Rating System". Equivalently, World Bank E & S Norms, Carbon Disclosure Project, Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), ISO 14000 etc. are other guidelines for green banking. The two emerging birds of World Bank International Finance Corporation (IFC) and The Financial Times had started the finance awards for the institutions that are integrating social, environmental and corporate governance considerations into their business operations.

Green Banking Initiatives by Indian Banking Industry

Current Scenario

- SBI comes out with "green - channel banking" at most of its branches to encourage paperless banking and to aid speedy transactions for customers, SBI sources said Asia Pulse (Rhodes) 11 May, 2011.
- The Institute for Development and Research in Banking Technology (IDRBT), which is an arm of RBI, is all set to launch standards for green funds under which banks are given direction to set up green funds and have a chief green officer to increase concessional loans to players undertaking environment-friendly projects. The banks on their parts are presently investigating the protocols and in a shorter time, might blow in with definite policies, Chief Executive.
- To support financial institutions banks discard the use of couriers to transport tapes to an offsite location, ITI presents protected online backup and improved solutions. Cost-effective data encryption solution encrypts and compresses data so that files can be safely transmitted to an offsite server or electronic vault, again eliminating the need for couriers.
- The Wilkinson Propensity was designed to employ less energy and water than standard buildings and pool a number of environmentally-advanced features that abridge its impact on the environment. The facility will pursue Silver recognition under the Leadership in Energy and Environmental Design (LEED) standards set by the U.S. Green Building Council.
- State Bank of India (SBI) has become the first bank in the country to start generation of green power by installing windmills for captive use. As part of its green banking initiative, SBI has installed 10 windmills with an aggregate capacity of 15 MW in the states of Tamil Nadu, Maharashtra and Gujarat.

Tools Used For Green Banking

Sr. No.	Initiatives	Explanations
1.	Green Deposits	Higher interest on commercial deposits, money market, saving account and checking accounts are provided by the banks if customers opt to handle online banking for transactions etc.
2.	Green Mortgages and Loan	For energy efficient businesses higher interest rates will be provided by the bank. Few green mortgages allow home buyers to add 15 per cent of the value of their house into loans to raise energy efficient windows, geothermal heating, water heaters and solar panels.
3.	Green Credit Cards	Greater rewards or points earned by the card holder which can be redeemed for gifting to eco-friendly charitable organisations.
4.	Mobile Banking	This is the most popular green banking initiative that allows the customers to check balances, pay bills from mobile phone and transfer funds, helps in saving time and paper of the banks.
5.	Carbon Footprint Reduction	It relates to the amount of green house gases we are producing in day to day occupation while burning fossil fuels for electricity, transportation and heating etc. Bank can reduce it by paperless banking, green building, one transportation to all, using CFL, use of solar and wind energy, online banking, saving paper, green power plants etc.
6.	Green Reward Checking	Customers who choose to go green benefited with reward checking accounts under bank product, they can earn higher checking account points if they are able to fulfil monthly requirements that might include paying bills online, electronic statements, using credit/debit cards.

Source : RBI

There is an immediate exigency to promote awareness and concern among the society with respect to the environmental sustainability and impacts of adopting various green banking practices. There is a common lack of satisfactory awareness about the environmental-friendly banking practices adopted by the bank even

between some of the bank employees. The present investigation will ease the people to know the type of green banking products and check their awareness level.

LITERATURE REVIEW

Indian Banks and Green Initiatives

Banks should frame the strategies like carbon credit business, adopt eco-friendly technology and promote environmental-friendly products and services in their business operations to reduce environmental risk with a view Goel, A. (2014) studied various guidelines framed by World Bank and RBI for environmental practices. The author also investigated the various strategies adopted by public and private sector banks in India. The finding of the study shows that banks continuously tie with green initiatives by means of financing green projects, constructing green building and performing green operations. In India, taking Mumbai as a sampling frame Sharma, Gopal *et al.* (2014) investigated the level of consumer awareness towards green banking practices with the help of primary survey. By using Chi-square test authors reached at a point that there is equivalency in awareness for green products among males and female. The result of the study also revealed that people who are using online facilities nearly three-fourth of them are totally unaware. Furthermore, the authors find that the major hindrance is the technical issues to understand the green banking concept immediately followed by lack of education. Banks go green and promote sustainability is an emerging pressure on banks by stakeholders. In 2014 Jaggi, explored the initiatives covered by two Indian public sector banks SBI and ICICI. The author find that both the banks are in the line to perform the green initiatives in their business operations. They further finds that the major practices adopted by SBI and ICICI include green channel counter, no que banking, enhanced commitment towards achieving carbon neutrality, instant banking, CFL, carpool, recycling, duplexing, online money transfer and wind farms.

Nath, Nayak *et al.* (2014) attempt to study the green rating standard given by RBI, the World Bank's environmental and social norms and the initiative taken by bank in adopting green practices. They also list strategies for adopting Green Banking. Green Rating Standard is known as Green Coin Rating. Under this, banks are evaluated on the basis of carbon emissions and amount of recycling activities. World Bank has formed environmental and social norms for financial institution. These norms provide ways to reduce environmental impact. Banks are required to do Environmental Impact Assessment, Annual Reporting and adopt sustainable

technology. The researchers study and list the initiative taken in respect of environment by different banks in India. If the Indian banks want to achieve some position in global economy, then they have to act as good corporate citizens. In another study conducted in India, Sudhalakshmi and Chinnadorai (2014) state that green mantra is an important tool for emerging economies but there are no significant measures in the field adopted by Indian banks. Banks are required to include their green attitude in the lending principle. Every step taken today will mean a better global environment in future. So a policy measure to foster green banking is required in India. Banks are running behind time in confirmation of green strategies. Steady measures are needed to be taken in this aspect. Similarly, study conducted by Jha and Bhome (2013) surveyed to create the consumer awareness towards green products with the help of questionnaire and interviews. Online banking, green checking accounts, green loans for supporting environment-friendly residential projects, power saving equipments, paper saving mobile banking, green credit cards are among few steps suggested by them. The authors concluded that the green initiatives definitely will assure the corporation's move towards sustainability.

In the UNEP FI there are no single Indian signatories with a statement Rajput, Kaur *et al.* (2013) studied how Indian banks respond to green banking initiatives and environmental changes. They find that there is a small group of banks in India that lead in environmental aspect. Response of Indian banks towards international initiative for environment is sluggish. In the United Nations Environment Programme Finance Initiative there is no single Indian signatory. Using factor analysis they conclude that risk of failure of business to peers and lack of RBI mandates are the hindrances to moving towards sustainability. The gaps in India are the awareness and consciousness on the environmental issues. Carbon Disclosure Projects- India requires public disclosure of emissions. This disclosure project is active in India. But the response is very less as only 8 signatories are there. By using case study approach, Yadav and Pathak (2013) find that Indian public and private banks know the importance of taking positive steps toward environment sustainability. The results of the study showed that public banks have performed more initiatives as compared to private sector banks with exception of ICICI bank. In private sector, only ICICI bank's approach is a sustainable approach. Green banking is the key in mitigating the credit risk, legal risk and reputation risk with these words Dharwal and Agarwal (2013) recommended part of green banking approaches like carbon credit business, green financial products, green mortgages, carbon footprint reduction, energy consciousness, green buildings and social responsibility services pointing to the society. Notwithstanding, most banks were doing "Single Bottom Analysis" i.e. they were only taking financial performance of

borrowers, but in place of this they should do "Triple Bottom Analysis" i.e. observing the environmental and social performances as well.

By using Garrett's ranking technique, Bahl (2012) highlights the means of creating awareness about Green Banking to ensure sustainable growth. The finding shows that proper education is the only source to create awareness among the customers and employees of the Indian banks. Among the internal sub-systems, emphasis should be given to publications, newsletters so as to create awareness and effective means for external sub-systems are event meetings, media and websites. A proper formulated green policy guideline is needed for effective Green Banking. Banks should stimulate their customers to adopt the green services like usage of green cards, ATM which helps in less paper work and as well saves time with these suggestions. Kumar and Jinwala (2013) exemplify the development of green banking in India and also declared the blessings of green banking to the individual customers. The results of the study show that there is lot of opportunity made available in stretching green banking in India because there are only few banks in India that have taken initiative to inculcate the concept of green banking. The main gap identified in the green banking is that customer is not aware of environmental standards, issues and guidelines by concluding the study with these statements. Rajput and Kaura (2013) have defined a paradigm shift in Indian banking sector in which they have discussed about the environment sustainability by providing green banking services to the customers. The main focus of their study is to identify the necessary steps adopted by the banks to face challenges in green banking. From this study, they analyzed that there are only few banks like SBI, IDBI, HDFC, and YES bank which actively signed CDP projects with some international banks. Green banks play very important role in environmental stability which would be profitable for future generation. D.Kandavel (2013) has identified the strategic plans adopted by Indian banks to make the society green with electronic banking services, develop green branches in rural areas, provide green home loan, support green projects, organize awareness campaign in schools and colleges for tree plantation and keep the environment clean, reduce waste, recycle or reuse waste material, proper disposal of sewage effluents, utilize the energy efficiently, preserve bio-diversity, avoid usage of paper work. Sahoo and Nayak (2008) examined the pertinence of Green Banking and cite international experience in this respect. The results revealed that there are no any wealthy green initiatives used by banks in India and thus, policy measures are needed to encourage green banking in India. The study also reveals that none of the Indian banks have support, and follow the equator principle and also none of them is signatory to UNEP FI Protocols. Indian banks should use environmental criteria for funding projects.

The review of available literature shows that most studies about various green/eco-friendly banking practices were done in India. We realize that no study has been carried out regarding these environment-friendly banking practices in India till date with foreign banks. Therefore, it is evident that there is a research gap and choosing this area for doing research would surely help the banking sector, customers, policy makers and the society as a whole.

RESEARCH OBJECTIVES

1. To examine the extent of various green banking approaches adopted by public, private and foreign banks in India for environmental sustainability.
2. To investigate the relationship between demographic characteristics of the respondent (Customers & Employees) and their level of awareness about green banking initiatives.
3. To identify the factor that might influence satisfaction level of respondents (Customers) towards green banking products.
4. To explore the most important factor in views of respondents (Employees) affecting Green banking approaches.

RESEARCH HYPOTHESIS

- H_{01} : There is no significant difference between extent of various green banking approaches adopted by selected banks for environmental sustainability.
- H_{02} : There is no significant relationship between demographic characteristics of the respondent (Customers & Employees) and their level of awareness about green banking initiatives.
- H_{03} : There is no significant difference in any factor that might influence satisfaction level of respondents (Customers) towards green banking products.
- H_{04} : There is no significant difference in any important factor affecting green banking approaches.

RESEARCH METHODOLOGY

Data Source

The study covers both primary and secondary data. The secondary data was collected from the official websites of selected banks. Primary data was collected with the help of pre-tested questionnaire which was distributed and collected from the selected banks' customers and employees of Lucknow, Dehradun, Delhi and Jaipur. The data has been collected directly by door to door investigation,

email and by post. Sample respondents were requested to give a free and frank response.

Sample Design

Simple random sampling method is used to collect data from 1000 respondents, out of which 600 were customers' and 400 employees were selected from highly populated cities namely, Lucknow, Dehradun, Jaipur and Delhi. Out of total distributed questionnaires, 500 successfully received from the customers and 300 from the employees of banks. A pre-tested two-structured questionnaire was given to respondents of the banks of the selected cities. The first questionnaire has three sections; the first section relates to demographical profile of respondents and the second part relates to the awareness level of customers towards green banking products and the third part relates to the factors influencing their satisfaction level towards green products. The second pre-tested questionnaire was given to the employees of selected banks which was divided in three parts. The first part relates to demographical profile of employees and the second part relates to the awareness level of employees towards green banking products and the third part relates to important factor which determines necessity of green banking. With the help of market capitalisation, 5 banks from each sector have been selected for the study.

Sr.No.	Public Banks	Private Banks	Foreign Banks
1.	SBI	ICICI Bank	City Bank
2.	Bank of Baroda	HDFC Bank	HSBC Bank
3.	PNB	Karnataka Bank	Royal Bank of Scotland
4.	Canara Bank	City Union Bank	Standard Chartered Bank
5.	Central Bank	Lakshmi Vilas Bank	Federal Bank

PERIOD OF THE STUDY

The questionnaire of the study filled between a period from Sep., 2015 to Jan., 2016. Further, the 5 years' (2010-2015) annual reports of selected banks were analysed to assess the green banking approaches in these 5 years and to know the principal player among selected banks.

TOOLS AND METHODS OF DATA ANALYSIS

Tabulation and Classification of Data

The data was collected through a pre-tested questionnaire and tabulated.

The data has been classified on the basis of age, educational qualifications, occupation, monthly income and gender held by the respondents. Cross-tabulation has been done according to different variables.

Framework of Data Analysis

Statistical package for social science (SPSS 20) was used to analyse the data. Chi-Square Test was applied for testing the hypothesis at 5% level of significance. Statistical technique like percentile was used to analyze the data. Garrett's Ranking Technique was conducted to determine the most important factors affecting Green banking approaches. Likert's Scale Technique was also used for analysis. Further, factor analysis was used to identify the factor that might influence satisfaction level of respondent towards green banking products.

Garrett's Ranking Technique

To find out the most significant factor which influences the respondent towards green banking factors, Garrett's Ranking Technique was used. As per this method, employees have been asked to assign the rank for all factors and the outcomes of such ranking have been converted into score value with the help of the following formula:

$$\text{Percent Position} = 100 (R_{ij} - 0.5) / N_j$$

Where R_{ij} = Rank given for the i th variable by j th respondents N_j = Number of variable ranked by j th respondents. With the help of Garrett's Table, the percent position estimated is converted into scores. The percentage score for each rank from 1 to 'n' is calculated. The percentage score obtained for all the ranks is converted into scale values using Scale Conversion Table given by Henry Garrett. The scale values for first rank to n th rank are different according to the number of items in each Table. The score value is calculated for each factor by multiplying the number of respondents (f) with respective scale values (x). The total scores are found by adding the score values (fx) of each rank for every item in the Tables. The mean score is then calculated to know the order of preference given by the respondents for those items.

SCOPE OF THE STUDY

The present study is an attempt to study the customers' and employees' awareness of the selected public, private and foreign banks towards green banking initiatives of four major cities Lucknow, Dehradun, Jaipur and Delhi. It involves understanding the basic concept of green initiatives and various tools under green initiatives. Similar studies on this line may be conducted in other cities, too, and

for different green products in India but foreign banks excluded.

LIMITATIONS OF THE STUDY

For the investigation, data was collected and interpreted with utmost reliability and consistency but due to prejudices of a few respondents and unavailability of banks in a selected frame, certain limitations of the study are as follows: The study depicts the present scenario in the selected cities and hence the result may not be applicable to another period of time. The study is limited to 800 respondents of the selected cities of India. Answer to the questionnaire depends upon the beliefs and prejudices of customers and employees. It is on the assumption that respondents are true and honest in expressing their views and have filled the questionnaire honestly and without any bias. The present study is restricted to information collected about the green banking initiatives with the help of questionnaire.

ANALYSIS AND RESULTS

Assessing Reliability

The reliability of the measurements in the survey was tested using Cronbach's alpha (Hair *et al.*) stated that a value of 0.70 and higher is often considered the criterion for internally consistent established factors. Cronbach's Alpha is calculated as 0.903, which is well above the minimum desirable limit of 0.70. The Cronbach's a Coefficients in parentheses indicating the internal consistency reliability of the measures (a = 0.903). There are 15 variables and using factor analysis, we extract three factors where Kaiser Meyer-Olkin Measure of Sampling Adequacy was 0.84 (Approx. Chi-Square = 668.412 df = 293 Sig. = .000), which also confirms the results of our survey.

Table 1
Result of Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.903		15 items

As shown in the Table 1 the value of Cronbach Alpha has been calculated as .903, which is well above the minimum desirable limit of 0.70. The result confirms the reliability of the survey.

Table 2
Extent of Green Banking Initiatives by Selected Banks

Public Sector Banks	Number of Green Banking Initiatives	Private Sector Banks	Number of Green Banking Initiatives	Foreign Sector Banks	Number of Green Banking Initiatives
SBI	19	ICICI Bank	19	City Bank	28
Bank of Baroda	18	HDFC Bank	19	HSBC Bank	22
PNB	16	Karnataka Bank	15	Royal Bank of Scotland	22
Canara Bank	14	City Union Bank	11	Standard Chartered Bank	26
Central Bank	17	Lakshmi Vilas Bank	12	Federal Bank	21

The selected 15 banks from 3 different sectors follow green banking initiatives in their own style and willingness. Table 2 clearly expressed that foreign sector bank is the principal player in this game of green. The main reason behind this is that the foreign banks truly influenced with ESG integration, UNEP FI, Equator Principle etc. which Indian public sector and private sector banks try to associate but not mandated themselves to follow.

As the obtained Chi-Square value in Table 3 is 23.296, 16.887 and 36.233 and is statistically significant at less than 1% significance level, the null hypothesis is rejected and we conclude that there is a strong evidence to show that there is close relationship between the Age group, Educational qualification and Monthly Income of the customers towards awareness of green banking. Whereas Chi-Square value is obtained 6.554, 8.803 and 4.108 is less than 1% significant level, the null hypothesis is accepted and we can conclude that there is no significant relationship between gender, occupation status and type of bank account and their awareness level.

Table 3
Chi-Square Value- Demographic Profile of Respondents and Level of Awareness of Green Banking Initiatives (N = 500)

Personal Factors		No. of Respondents	Percentage	Chi-Square	p-value	Significant/ Not Significant
Gender	Male	382	76.40	6.554	.244	NS
	Female	118	23.60			
Age Group	Less than 20	29	5.80	23.396	.001	S
	20-25	121	24.20			
	25-30	93	18.60			
	30-35	145	29.00			
	35 above	112	22.40			
Educational Qualification	No Formal Education	54	10.80	16.887	.020	S
	School Level	124	24.80			
	Graduate Level	197	39.40			
	P.G. Level	81	16.20			
	Professional	44	8.80			
Occupation Status	Student	129	25.80	8.803	.743	NS
	Employed	235	47.00			
	Business	136	27.20			
Monthly Income	Less than 10,000	79	15.80	36.233	.001	S
	10,000-15,000	191	38.20			
	15,000-20,000	69	13.80			
	20,000 and above	169	33.80			
Type of Bank Account	Public	198	39.60	4.108	.399	NS
	Private	153	30.60			
	Foreign	149	29.80			

Table 4
Level of Awareness Among Customers of Selected Banks Towards Green Banking Initiatives Performed By Selected Banks

Sr. No.	Variables	Fully Aware	Some-What Aware	Doubtful	Not Aware	Not at all Aware
1.	Green Channel Services	15.00%	16.00%	14.00%	39.40%	15.60%
2.	Green Mortgages	15.40%	18.60%	12.80%	38.40%	14.80%
3.	Green Deposits	18.00%	15.60%	12.60%	37.00%	16.80%
4.	Green Banking	18.00%	17.60%	12.00%	34.60%	17.80%
5.	Mobile Banking	20.00%	21.60%	23.20%	13.60%	21.60%
6.	Green Loans	15.44%	15.60%	18.80%	38.20%	12.00%
7.	Green CDs	15.00%	16.00%	19.00%	39.60%	10.40%
8.	Bank Environment Policy	16.40%	14.60%	15.00%	40.00%	14.00%
9.	E- Investment Services	17.2%	15.20%	19.20%	31.20%	17.20%
10.	Green Checking	16.00%	17.00%	19.60%	35.60%	11.80%
11.	Online Banking	20.00%	18.40%	17.80%	26.20%	17.60%
12.	Internet Banking	13.60%	14.00%	19.00%	27.80%	5.60%
13.	Solar Powered ATMs	13.40%	13.60%	15.00%	45.80%	12.20%
14.	Green Credit/Debit Cards	23.20%	10.20%	16.80%	27.80%	22.00%
15.	Online Bill Payment	31.40%	37.60%	12.60%	16.80%	1.60%

In this competitive globalised era, the banks are providing a lot of features to customers in different innovative and sustainable styles. At the same time, the level of awareness of the customers is not up to the mark. Against this background, in this section an attempt has been made to explore level of awareness towards green banking initiatives among bank customers and schemes of green banking policy in the study area. The results of the investigation are reported in Table 4. We aggregated the fully aware and somewhat aware as aware and also aggregated the not aware & not at all aware, as not aware. It is observed from the Table 4 that less than half of the customers are found to be aware of Online Banking (20.00%), Green credit cards (23.20%), Mobile Banking (20.00%), The highest number of customers is not aware about Green Loans (38.20%), Green CDs (39.60%), Solar Powered ATMs (45.80%), Green Deposits (37.00%), Green Banking (34.60%), E-Investment Services (31.20%), Bank Environment Policy (40.00%) and Green Checking (35.60%).

Table 5
Chi- Square Value- Demographic Profile of Employees and Level of Awareness of Green Banking Initiatives (N = 300)

Personal Factors		No. of Respondents	Percentage	Chi-Square	p-value	Significant/ Not Significant
Gender	Male	189	63.00%	4.554	.001	S
	Female	111	37.00%			
Age Group	Less than 20	0	0.00%	33.396	.001	S
	20-25	20	6.67%			
	25-30	68	22.67%			
	30-35	112	37.33%			
	35 above	100	33.33%			
Educational Qualification	No Formal Education	0	0.00%	19.647	.020	S
	School Level	0	0.00%			
	Graduate Level	89	29.67%			
	P.G. Level	142	47.33%			
	Professional	69	23.00%			
Occupation Status	Student	0	0.00%	.403	.833	NS
	Employed	300	100.00%			
	Business	0	0.00%			
Monthly Income	Less than 10,000	12	4.00%	26.222	.001	S
	10,000-15,000	39	13.00%			
	15,000-20,000	123	41.00%			
	20,000 and above	126	42.00%			
Type of Bank	Public	100	33.33%	7.219	.001	S
	Private	100	33.33%			
	Foreign	100	33.33%			

Therefore, the obtained Chi- Square is in Table 5, 4.554, 33.396, 19.647, 26.222 and 7.219 is statistically significant at less than 1% significance level, the null hypothesis is rejected and we conclude that there is a strong evidence to show that there is close relationship between the Gender, Age group, Educational qualification, Monthly Income and Type of Bank of the employees towards awareness of green banking. Whereas Chi-Square value is .403, the null hypothesis is accepted and we can conclude that there is no significant relationship between occupation status of employees and their awareness level.

Table 6

Status of Awareness Among Employees of Selected Banks Towards Green Banking Products

Sr. No.	Variables	Fully Aware	Some-What Aware	Doubtful	Not Aware	Not at all Aware
1.	Green Channel Services	15.66%	39.66%	14.33%	15.33%	15.00%
2.	Green Mortgages	17.33%	33.00%	16.00%	14.66%	19.00%
3.	Green Deposits	18%	29.00%	16.66%	18.66%	17.66%
4.	Green Banking	14.33%	36.00%	17.66%	15.00%	17.00%
5.	Clean Development Mechanism	16.00%	36.66%	15.00%	15.00%	15.33%
6.	Green Loans	15.00%	40.00%	13.33%	17.00%	15.00%
7.	Green CDs	17.00%	32.33%	15.33%	16.66%	16.66%
8.	Bank Environment Policy	14.33%	35.33%	18.00%	18.66%	16.33%
9.	E- Investment Services	16.66%	34.00%	14.38%	16.00%	16.00%
10.	Green Checking	12.33%	51.33%	10.33%	19.00%	12.00%
11.	Energy Efficient Branches and Loans	15.00%	38.66%	15.66%	13.66%	16.66%
12.	ESG Integration	17.33%	31.66%	16.00%	14.00%	17.33%
13.	Solar Powered ATMs	16.66%	34.33%	15.33%	17.66%	16.33%
14.	Green Credit/Debit Cards	18.00%	28.33%	16.66%	17.33%	18.33%
15.	UNEP FI (United Nation Environment Programme Financial Initiatives	12.66%	49.00%	11.00%	18.66%	13.33%

It is observed from Table 6 that out of 300 selected banks' employees, less than half of the respondents are somewhat aware about green banking concept of banks, policies and initiatives. At the time of survey, quite easy discussion was also made with the employees of the bank during this training. According to them, lack of training, environment education and other factors are the reasons for less awareness. It has also been found that the employees of foreign sector banks are much aware as compared with public and private sector banks.

Table 7
Factors Influencing the Customers Towards Green Banking Products

Types of Factors	Factors	Factor Loading	Cronbach's Alpha
Environmental Factors	Environment friendly	.934	.903
	Sustainability	.966	
	Ethical Tantrum	.895	
	Advocates Cleanliness	.705	
	Eco-Friendly Concept	.699	
Safety and Timeliness Factors	Safe to Use	.543	.856
	Time Saving	.697	
	Highly 3D Secured	.464	
	Free from Carry Cash all Times	.601	
	Easy and Avoid Mischief	.511	
	Free from Theft	.302	
Legal Factors	CSR	.634	.892
	Corporate Governance	.516	
	Customer Relationship Management	.601	
	Legal Pressure	.406	

Table 8
Results of Rotated Component Matrix KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.849
Bartlett's Test of Sphericity .901	Approx. Chi-Square	668.412
	Df	293
	Sig.	.000

We extract factors where Kaiser-Meyer-Olkin Measure of Sampling Adequacy under Table 8 was 0/84 (Approx. Chi-Square = 6648.412 df = 293 Sig. = 0 / 0 00), which confirms that the factor analysis data was appropriate with the value of .849, which falls between the ranges of being great and appropriate of factor analysis data. Bartlett's Test was utilized with the results which indicates highly significant result with $p = 0.000$ ($p > 0.05$) and therefore, factor analysis is appropriate. Customers' responses on 15 factors were reduced to 3 sets of related factor through Principal Components Analysis, namely Environmental Factors, Safety and Timeliness Factors and Legal Factors. The results of Table 7 revealed that customers were influenced more with the environmental factors (.903) as it has a highest factor loading as compared to other two factors.

Henry Garrett's Ranking Technique

To explore most important factor in view of respondents affecting Green banking approaches. Through the help of Garrett's Rating Technique it can be achieved. Ho3: There is no significant difference in any important factor affecting green banking approaches. The null hypothesis formulated gets rejected as there is a significant difference in ranking important factors affecting green banking approaches as a reason behind this each factor has different importance and influence distinguished level to attract respondents.

It is observed from Table 9 that most employees of banks believed green banking as environmental banking; this is because the term 'green' goes mostly with the environment. Secondly, green banking is marked to be ethical banking and it covers CSR. The fourth factor observed from the analysis that it attracts the customers and the concept immediately followed by the fifth factor i.e. raises profit. The results further revealed that employees attached with green banking as it is a part of Islamic cannon.

Table 9
Most Important Factor in View of Employees Affecting Green Banking Approaches

Factors	1 82	2 70	3 63	4 58	5 52	6 48	7 42	8 36	9 29	10 18	N	Total score	M. S.
F1 Environmental Banking	25 (5176)	89 (6230)	32 (2016)	63 (3654)	44 (2288)	42 (2016)	91 (3822)	14 (504)	33 (957)	67 (1206)	500	27869	55.73 (1)
F2 Attracts Customers	67 (5494)	43 (3010)	42 (2646)	55 (3190)	69 (3588)	51 (2448)	88 (3696)	27 (972)	26 (754)	32 (576)	500	26374	52.74 (4)
F3 Advocates Cleanliness	78 (6396)	47 (3290)	37 (2331)	32 (1856)	35 (1820)	76 (3648)	30 (1260)	49 (1764)	71 (2059)	74 (1332)	500	25756	51.51 (6)
F4 Raises Profit	33 (2706)	48 (3360)	81 (5103)	29 (1682)	59 (3068)	58 (2784)	8 (3360)	89 (3204)	13 (377)	10 (180)	500	25824	51.64 (5)
F5 Ethical Banking	58 (4756)	63 (4410)	56 (3528)	82 (4756)	32 (1664)	77 (3696)	63 (2646)	29 (1044)	21 (609)	19 (342)	500	27451	54.90 (2)
F6 Reduces Stationery Cost	51 (4182)	12 (840)	55 (3465)	65 (3770)	59 (3068)	53 (2544)	25 (1050)	82 (2952)	91 (2639)	7 (126)	500	24636	49.27 (8)
F7 Reduces Resource Wastages	46 (3772)	34 (2380)	27 (1701)	81 (4698)	92 (4784)	34 (1632)	66 (2772)	51 (1836)	26 (754)	43 (774)	500	25103	50.20 (7)
F8 Covers CSR	68 (5576)	89 (6230)	67 (4221)	34 (1972)	27 (1404)	17 (816)	44 (1848)	83 (2988)	20 (580)	51 (918)	500	26553	53.10 (3)
F9 Islamic Canons	18 (1476)	27 (1890)	83 (5229)	57 (3306)	36 (1872)	29 (1392)	82 (3444)	71 (2556)	35 (1015)	62 (1116)	500	23296	46.59 (9)
F10 Legal Pressure	8 (656)	23 (1610)	21 (1323)	49 (2842)	99 (5148)	40 (1920)	66 (2772)	56 (2016)	33 (957)	42 (756)	500	20000	40.00 (10)

CONCLUSION AND POLICY IMPLICATIONS

Green is the world now where time demands sustainability. There is a requirement of urgent growth in awareness regarding protecting and conserving the environment. It accommodates management of environment with banking exertion and intent to reduce the carbon footprints from operations. Banks are also allied citizens who have the accountability towards the society in which they exist. Green Banking is a crucial issue concerning the development of the nation. With globalization and increasing competition moving towards the green wave provides competitive advantage. For India, there is a huge lot of opportunity available which they can exploit under political agendas and move towards their goal of economic development. Strict steps are needed if we actually want to practice Green Banking. But before that what is needed is increasing consumer and employee awareness.

The results of the study denote the three common demographic factors i.e. educational qualification, monthly income and age group related to level of customer and employee awareness towards green banking. Further, the finding shows that in view of employees, green banking is an important part of banking system as it consists environment. Further, the customers' responses on fifteen factors were converted into 3 sets of related factors through Principal Components Analysis, namely Environmental Factors, Safety and Timeliness Factors and Legal Factors. The results revealed that customers were influenced more with the environmental factors (.903) as it has a highest factor loading as compared to other two factors.

Green Banking not only means sustainable use of resources but also adopting green lending principles. The review of literature conducted reveals that what is missing in context of implementation of Green Banking is the level of consumer awareness and education. So, proper training and educational programs by banks for the green initiatives actually make Green Banking a success. On the other side, we feel that current management system needs to be integrated with the environmental and sustainable issues. The study recommends the adoption of benevolent policy by banks so that it will be easier for them to adopt green banking with marginal cost. More importantly, employee and customer awareness program relating to green banking should be extended by prioritizing research-based approach. It is hoped that results of the study provide a gateway for further research that eventually provoke the Indian banking industry to develop its pillars with sustainability and social integration as well enables the stakeholders to access the

bank performance in terms of corporate governance disclosures, CSR, CRM, ESG Practices and also helps those who are associated with the bank by any means to provide safe assistance and fairness in dealings as well as helps the bank with regard to green banking dimensions in building long-term sustainability.

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